

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. *(Currently Amended):* A lithographic support system, comprising:
a moveable support structure configured to support and move an object, said support structure comprising a robot arm having a rod coupled to a support frame that is provided with a clamp that clamps the object; and
a compliant structure configured to compensate for at least one of a tilt and displacement between said object and said clamp, the compliant structure being provided ~~on~~ at least between the rod ~~or~~ and the support frame.
2. *(Cancelled):*
3. *(Currently Amended):* The lithographic support system of Claim 1, wherein said compliant structure ~~provided on the rod~~ comprises two or more compliant rods that are rotatable at their ends.
4. *(Currently Amended):* The lithographic support system of Claim 1, wherein said compliant structure ~~provided on the support frame~~ comprises a notch such that a front portion of the support frame is enabled to rotate.
5. *(Previously Presented):* The lithographic support system of Claim 1, further comprising a second compliant structure provided on said clamp.
6. *(Previously Presented):* The lithographic support system of Claim 1, wherein said support frame is in a plane defined by a x-axis, a y-axis, and a z-axis being perpendicular to said x-axis and said y-axis, said compliant structure providing a compliance in at least one of a first rotation (Rx) about said x-axis, a second rotation (Ry) about said y-axis, and a z-direction parallel to said z-axis.

7. *(Original)*: The lithographic support system of Claim 3, wherein said compliant structure is arranged such that said support frame is allowed to rotate about a predetermined center of rotation.

8. *(Original)*: The lithographic support system of Claim 1, wherein said object comprises a substrate (W).

9. *(Cancelled)*.

10. *(Original)*: The lithographic support system of Claim 1, wherein said compliant structure comprises a metal flexure.

11. *(Withdrawn)*: A lithographic clamping structure, comprising:
a Johnson-Raybeck effect type clamp having an upper surface for clamping an object;
and

an oxidized layer, provided on said upper surface of said Johnson-Raybeck effect type clamp to minimize heating effects transferred to said object.

12. *(Withdrawn)*: The lithographic clamping structure of Claim 11, wherein said predetermined decaying AC-profile is an RF AC profile.

13. *(Withdrawn)*: A lithographic support structure for holding and moving an objects, comprising:
at least one Johnson-Raybeck effect type clamp; and
a controller coupled to said Johnson-Raybeck effect type clamp and configured to provide a clamping and de-clamping voltage to said Johnson-Raybeck effect type clamp,
wherein said controller is arranged to generate said de-clamping voltage with a decaying AC-profile.

14. *(Withdrawn)*: Method of cleaning a substrate holder in a lithographic apparatus including a clamp for clamping a substrate, the method comprising:
introducing a substrate in said lithographic projection apparatus;

clamping said substrate to said substrate holder such that said substrate contacts said substrate holder at a first location;

de-clamping said substrate from said substrate holder;

repeating said clamping and de-clamping a number of times such that said substrate contacts said substrate table repeatedly on at least one of said first location and at a location other than said first location.

15. *(Currently Amended)* A lithographic robot, comprising:

a robotic arm configured to hold and move an object, the robotic arm having a rod coupled to a support frame that is provided with a clamp; and

a compliant structure configured to compensate for at least one of a tilt and displacement between said object and said robotic arm, the compliant structure being provided ~~on~~ at least between the rod ~~or~~ and the support frame.

16. *(Currently Amended)*: The lithographic robot of Claim 15, wherein said compliant structure ~~provided on the rod~~ comprises two or more compliant rods that are rotatable at their ends.

17. *(Currently Amended)*: The lithographic robot of Claim 16, wherein said compliant structure ~~provided on the support frame~~ comprises a notch such that a front portion of the support frame is enabled to rotate.

18. *(Currently Amended)*: A lithographic apparatus, comprising:

a radiation system configured to provide a beam of radiation;

a support structure configured to support a patterning device that imparts a desired pattern onto said beam of radiation;

a substrate holder configured to hold a substrate;

a projection system configured to project said patterned beam onto a target portion of said substrate; and

a support system that holds and moves one of said substrate, said patterning device, and an object, in which said support system comprises:

a support frame provided with a clamp;

a rod coupled to the support frame; and

a compliant structure configured to compensate for at least one of a tilt and displacement between said substrate, said patterning device, or said object and said clamp, the compliant structure being provided at least between on the rod or and the support frame.

19. *(Withdrawn)*: A lithographic apparatus, comprising:

- a radiation system configured to provide a beam of radiation;
- a support structure configured to support a patterning device that imparts a desired pattern onto said beam of radiation;
- a substrate holder configured to hold a substrate;
- a projection system configured to project said patterned beam onto a target portion of said substrate; and
- a Johnson Raybeck effect type clamp configured to clamp at least one of said substrate patterning device, said clamp having an upper surface and an oxidized layer, provided on said upper surface, to minimize heating effects transferred to said at least one of said substrate and said patterning device.

20. *(Withdrawn)*: A lithographic apparatus, comprising:

- a radiation system configured to provide a beam of radiation;
- a support structure configured to support a patterning device that imparts a desired pattern onto said beam of radiation;
- a substrate holder configured to hold a substrate;
- a projection system configured to project said patterned beam onto a target portion of said substrate;
- a robot configured to hold and move a substrate;
- a clamp configured to clamp said substrate to said substrate holder such that said substrate contacts said substrate holder at a first location; and
- a processor configured to instruct repeated clamping and de-clamping of said substrate by said clamp, such that said substrate contacts said substrate holder repeatedly at one of at least said first location and a location other than said first location.

21. *(Currently Amended):* A device manufacturing method, comprising:
providing a substrate via a support system, said supporting system comprising a rod
coupled to a support frame that is provided with a clamp structure that clamps said substrate,
said supporting system configured to hold and move said substrate and compensate for at
least one of a tilt and displacement between said substrate and said clamping structure by
employing a compliant structure provided ~~on~~ at least between the rod ~~or~~ and the support
frame;

providing a beam of radiation using a radiation system;
imparting a desired pattern onto said beam of radiation by a patterning device; and
projecting said patterned beam of radiation onto a target portion of said substrate via a
projection system.

22. *(Withdrawn):* A device manufacturing method, comprising:
providing a substrate via a clamping structure, said clamping structure comprising a
Johnson-Raybeck effect type clamp having an upper surface and an oxidized layer on said
upper surface;

providing a beam of radiation using a radiation system;
imparting a desired pattern onto said beam of radiation by a patterning device; and
projecting said patterned beam of radiation onto a target portion of said substrate via a
projection system.

23. *(New)* The lithographic support system of Claim 1, wherein the clamp is in
contact with the object.

24. *(New)* The lithographic support system of Claim 1, wherein the compliant
structure is arranged at least between the rod and the support frame so as to be in a
contactless relationship with the object.

25. *(New)* The lithographic support system of Claim 1, wherein the compliant
structure is configured to compensate for at least one of a tilt and displacement between the
object and the clamp during transport of the object between a first and a second support, the
first and the second support configured to support the object.

26. *(New)* A lithographic support system, comprising:

a moveable support structure configured to support and move an object, the support structure comprising a robot arm having a rod coupled to a support frame that includes a clamp configured to clamp the object; and

a compliant structure configured to compensate for at least one of a tilt and displacement between the object and the clamp during transport of the object between a first and a second support, the first and the second support configured to support the object, the compliant structure provided on the rod or the support frame so as to be in a contactless relationship with the object.

27. *(New)* The lithographic support system of Claim 26, wherein the clamp is in contact with the object.